THE LANCET Child & Adolescent Health

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Requejo J, Strong K, Agweyu A, et al. Measuring and monitoring child health and wellbeing: recommendations for tracking progress with a core set of indicators in the Sustainable Development Goals era. *Lancet Child Adolesc Health* 2022; **6:** 345–52.

CHAT Paper, Appendix

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Table: Child health, well-being and development indicators (149) complied from key global initiatives and organized according to monitoring and evaluation level and domain. Highlighted indicators are those that have been recommended as core indicators by CHAT.

Note: For each indicator, the following information was tabulated and is available upon request: 1) metadata (name, definition, numerator, denominator); 2) classification by five dimensions: a) type (inputs, process, outputs, outcome, impact), b) domain (health status, risk factors, service coverage, health systems, governance) and subdomain based on disease categories (e.g., malaria, pneumonia, etc.), c) age group (under 5, ages 5-9, and under 10), d) Global Strategy dimension (survive, thrive or transform), e) classification (tier 1 = measurable and high priority, tier 2 = complementary, and tier 3 = aspirational); 3) data sources; and 4) initiative advocating for the use of the indicator.

INPUTS AND PROCESSES (19 indicators total)

Governance (11)

- 1. Maternity protection (International Labour Organization Convention 183)
- ⇒ 2. Maternity leave: ILO Convention 183; 100% wages and paid for 14 weeks (date country adopted law)
- 3. Paternity leave: Any paid paternity leave in relation to childbirth or leave that can be used exclusively by fathers as paternity leave
- 4. Number of countries with legislation / regulations fully implementing the International Code of Marketing of Breast-milk Substitutes (resolution WHA 34.22) and subsequent relevant resolutions adopted by the Health Assembly.
- ⇒ 5. International Code of Marketing of Breastmilk Substitutes: Many provisions or full provision in law
- 6. Proportion of children under 5 years of age whose births have been registered with a civil authority (SDG 16.9.1)
- ⇒ 7. Birth registration: Percentage of children under age 5 who were reported to be registered at the moment of the survey.
- ⇒ 8. Birth registration: Proportion of children under 5 years of age whose births have been registered with a civil authority
- ⇒ 9. Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
- 10. Periodic reporting to the Convention of the Rights of the Child (CRC)

⇒ 11. UN Convention on the Rights of the Child 1989

Health systems and financing (7)

- 12. Overseas Development Aid to child health per child (US\$). (LSHTM method) (2013).
- 13. Costed national implementation plan for maternal, newborn and child health
- 14. Annual reviews are conducted of health spending from all financial sources, including spending on RMNCH, as part of broader health sector reviews
- 15. Percentage of total health expenditure spent on reproductive, maternal, newborn, and child health
- 16. Types of financing mechanisms for the delivery of maternal health goods and/or services identified, tested, and officially adopted
- 17. RMNCH expenditure by source
- 18. Policy against user fees: National policy states that the life-saving commodities or related services are provided free-of-charge (i.e. no user fees) at the point of service delivery as part of essential intervention package in the public sector.

Supply chain (1)

19. Child life-saving commodities in essential medicines list: Amoxicillin, oral rehydration salts and zinc are in the essential medicine list

OUTPUTS (1 indicator total)

Health systems (1)

1. Does the country implement the Integrated Management of Childhood Illness (IMCI) Strategy?

OUTCOMES (70 indicators total)

Risk factors and behaviors: Nutrition (14)

- 1. Percentage of infants <6 months who are fed exclusively with breast milk (WHO core 100 indicator)
- ⇒ 2. Exclusive breastfeeding rate in infants 0–5 months of age (%) (Every Woman, Every Child Global Strategy indicator)
- ⇒ 3. Exclusive breastfeeding: Exclusive breastfeeding (<6 months, %): Percentage of children aged 0–5 months who are fed exclusively with breast milk in the 24 hours prior to the survey. (Countdown to 2030 indicator)
- 4. Exclusive breastfeeding disaggregated by month (Countdown to 2030 indicator to complement Exclusive breastfeeding (<6 months, %)

- 5. Continued breastfeeding (year 1): Proportion of children 12–15 months of age who are breastfed (Countdown to 2030 indicator)
- 6. Continued breastfeeding (year 2): Proportion of children 20-23 months of age who are fed breast milk. (Countdown to 2030 indicator)
- 7. Introduction of solid, semi-solid or soft foods: Percentage of infants ages 6–8 months who receive solid, semisolid or soft foods. (Countdown to 2030 indicator)
- 8. Minimum dietary diversity: Proportion of children age 6–23 months who receive foods from four or more food groups. (WHO core 100 indicator, additional indicator)
- 9. Minimum acceptable diet: The proportion of breastfed children age 6–23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day and the proportion of non-breastfed children age 6–23 months who received at least two milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day (Countdown to 2030 indicator)
- 10. Proportion of children aged 6-23 months who receive a minimum acceptable diet (Every Woman, Every Child Global Strategy indicator)
- 11. Vitamin A supplementation coverage: Percentage of children aged 6–59 months who received two age-appropriate doses of vitamin A in the past 12 months (WHO core 100 indicator)
- ⇒ 12. Vitamin A supplementation, full coverage: Proportion of children aged 6–59 months who received two high-dose vitamin A supplements in a (given) calendar year. (Countdown to 2030 indicator)
- 13. Anaemia prevalence in children: Percentage of children aged 6–59 months with a hemoglobin concentration of less than 110 g/L, adjusted for altitude (WHO core 100 indicator)
- 14. Urinary iodine concentration in children aged 6–12 years: Median urinary iodine concentration (μg/L) in children aged 6–12 years

Risk factors and behaviors: Immunization (9)

- 15. Proportion of the target population covered by all vaccines included in their national programme (SDG 3.b.1)
- ⇒ 16. Percentage of children fully immunized (Every Woman, Every Child Global Strategy indicator)
- ⇒ 17. Full immunization of children under-5: Percentage of children under 5 fully immunized (Countdown to 2030 indicator)
- ⇒ 18. Immunization coverage rate by vaccine for each vaccine in the national schedule (WHO core 100 indicator)
- 19. Immunization DTP3
- 20. Immunization PCV3
- 21. Immunization measles (Countdown to 2030 indicator)
- 22. Immunization Hib3
- 23. Immunization Rotavirus

Childhood disease coverage (35)

- 24. Appropriate care-seeking for diarrhoea, suspected pneumonia, or fever: Proportion of children ages 0-59 months with diarrhoea, suspected pneumonia, or fever in the last two weeks who were taken to an appropriate health care provider
- ⇒ 25. Proportion of children ages 0-59 months with diarrhoea, suspected pneumonia, or fever in the last two weeks who were taken to an appropriate health care provider: Number of children ages 0-59 months with diarrhoea, suspected pneumonia, or fever in the last two weeks.
- 26. Treatment of sick children: diarrhoea, pneumonia and malaria
- 27. Diarrhoea treatment ORS: Percentage of children ages 0-59 months with diarrhoea receiving oral rehydration salts (ORS packets or pre-packaged ORS fluids).
- ⇒ 28. Percentage of children with diarrhoea receiving oral rehydration salts (ORS)
- 29. Coverage of diarrhoea treatment: Percentage of children under 5 years of age with diarrhoea in the last two weeks receiving ORS (fluids made from ORS packets or pre-packaged ORS fluids) and zinc supplement. (WHO core 100 indicator)
- ⇒ 30. Diarrhoea treatment: ORS + zinc: Percentage of children ages 0-59 months with diarrhoea receiving treatment with low-osmolarity oral rehydration solution (ORS) and zinc supplement. (Countdown to 2030)
- ⇒ 31. Diarrhoea treatment: Zinc Percentage of children ages 0–59 months with diarrhoea receiving zinc treatment (Countdown to 2030)
- ⇒ 32. Children under five with diarrhoea receiving oral rehydration therapy (ORT) and continued feeding during illness. (WHO core 100, additional indicator)
- 33. Care-seeking for symptoms of pneumonia: Percentage of children under 5 years of age with suspected pneumonia (cough and difficult breathing NOT due to a problem from a blocked nose) in the two weeks preceding the survey taken to an appropriate health facility or provider (WHO core 100 indicator)
- ⇒ 34. Proportion of children with suspected pneumonia taken to an appropriate health provider. (Every Woman, Every Child Global Strategy indicator)
- ⇒ 35. Care-seeking for symptoms of pneumonia: Percentage of children ages 0–59 months with suspected pneumonia taken to an appropriate health care provider. (Countdown to 2030)
- ⇒ 36. Health-seeking for pneumonia (ECD profiles- Countdown to 2030)
- 37. Pneumonia treatment (children)
- 38. Use of insecticide treated nets (ITNs): Percentage population in malaria-endemic areas who slept under an ITN the previous night. (WHO core 100 indicator)
- ⇒ 39. Malaria prevention in children under-five sleeping under ITNs. (Countdown to 2030)
- ⇒ 40. Use of insecticide-treated nets (ITNs) in children under 5 (% of children). (Every Woman, Every Child Global Strategy indicator)
- 41. Care-seeking for fever in children under-five: Proportion of children ages 0-59 months with fever in the last two weeks for whom advice or treatment was sought. (Countdown to 2030)

- ⇒ 42. Treatment-seeking behaviour for children with fever: Percentage of children under 5 years of age with fever in the previous two weeks for whom advice or treatment was sought (WHO core 100 additional indicator)
- 43. Malaria diagnostics in children under-five: Proportion of children ages 0-59 months with fever in the last two weeks who had a finger or heel stick. (Countdown to 2030)
- 44. Malaria treatment 1st line treatment: Proportion of children ages 0-59 months who had a fever in the last two weeks who received first line treatment according to national policy among those who received any antimalarial. (Countdown to 2030)
- ⇒ 45. Appropriate treatment among children treated for malaria: Percentage receiving first-line antimalarial treatment among those children under 5 years of age with fever in the last two weeks who received any antimalarial. (WHO core 100 additional indicator)
- → 46. Appropriate treatment for malaria: Number of children ages 0-59 months who had been diagnosed with malaria in the previous 2 weeks who received first line treatment according to national policy. (Countdown to 2030)
- → 47. Treatment of confirmed malaria cases: Percentage of confirmed malaria cases that receive first-line antimalarial treatment. (WHO core 100 indicator)
- 48. Early infant testing coverage: Percentage of HIV-exposed infants born within the last 12 months who received an HIV test within 2 months of birth.
- 49. Feeding of children born to HIV-positive mothers: Percentage of children born to HIV-positive women who are feeding in line with national guidelines on HIV and infant feeding.
- 50. People living with HIV who know their status: Percentage of people living with HIV who know their status.
- 51. Antiretroviral therapy (ART) coverage: Percentage of people living with HIV currently receiving ART among the estimated number of adults and children living with HIV.
- 52. ART retention rate: Percentage of adults and children with HIV alive and on ART at 12 months (or 24, 36, 48 and 60 months) after initiating treatment among patients initiating ART during a specified time period.
- 53. HIV viral load suppression: Percentage of people on ART who are virologically suppressed (VL level ≤ 1000 copies/mL).
- 54. Coverage of treatment for latent TB infection (LTBI).
- 55. TB treatment success rate: Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to national health authorities during a specified period, usually one year.
- 56. HIV test results for TB patients: Number of new and relapse TB patients who had an HIV test result recorded in the TB register, expressed as a percentage of the number registered in a specified time period.
- 57. Coverage of preventive chemotherapy for selected neglected tropical diseases: Proportion of the population living in endemic areas requiring preventive chemotherapy that received treatment for at least one of the selected neglected tropical diseases (schistosomiasis, soil-transmitted helminthiases, lymphatic filariasis, onchocerciasis).
- 58. Number of people requiring interventions against neglected tropical diseases: Number of people requiring treatment and care for any one of the neglected tropical diseases (NTDs) targeted by the WHO NTD Roadmap and World Health Assembly resolutions and reported to WHO. (SDG 3.3.5)

Child development (12)

- 59. Participation rate in organized learning (one year before the official primary entry age), by sex. (SDG 4.2.2)
- ⇒ 60. Participation rate in organized learning (one year before the official primary entry age), by sex. (Every Woman, Ever Child Global Strategy)
- 61. Early education attendance: Percentage of children 36-59 months old who are attending an early childhood education programme.
- 62. Children's books in the home: Percentage of children 0-59 months old who have 3 or more children's books at home.
- 63. Children play with objects at home: Percentage of children 0-59 months old who play with 2 or more of the following playthings at home: household objects or objects found outside (sticks, rocks, animals, shells, leaves etc.), homemade toys or toys that came from a store.
- ⇒ 64. Percentage of children aged 0–59 months who play with two or more of the playthings at home.
- 65. Adult support for early learning ("stimulation"):Percentage of children 36-59 months old with whom an adult has engaged in 4 or more of the following activities to promote learning and school readiness in the past 3 days: a) reading books to the child, b) telling stories to the child, c) singing songs to the child, d) taking the child outside the home, e) playing with the child, and f) spending time with the child naming, counting or drawing things.
- 66. Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month. (SDG 16.2.1)
- ⇒ 67. Maltreatment, harsh punishment: Percentage of children 1-14 years old who experience any violent discipline (psychological aggression and/or physical punishment), such as "(1) hit or slapped him/her on face, head, or ears in the past month; and (2) beat her/him up with an implement (hit over and over as hard as one could) in the past month. (Countdown to 2030 ECD profiles)
- 68. Positive discipline: Percentage of children aged 2-14 years who experienced any form of non-violent discipline in the past month, including (1) explaining why a behaviour is wrong, (2) taking away privileges or not allowing the child to leave the house, and (3) giving the child something else to do.
- 69. Percentage of children aged 0-59 months left alone, or in the care of another child under 10 years old, for more than an hour at least once in the past week
- ⇒ 70. Children without adequate supervision

IMPACT (59 indicators total)

Mortality (26)

- 1. Under-five mortality rate: the probability of a child born in a specific year or period dying before reaching the age of 5 years, if subject to the age-specific mortality rates of that period, expressed per 1,000 live births. (SDG 3.2.1)
- ⇒ 2. Under-five mortality rate: The probability of a child born in a specific year or period dying before reaching the age of 5 years, if subject to age-specific mortality rates of that period, expressed per 1000 live births. (WHO Core 100 indicator)
- ⇒ 3. Under 5 mortality rate: Probability of dying between birth and 5 years of age per 1 000 birth. (Countdown to 2030)

- ⇒ 4. Under-5 mortality rate (SDG 3.2.1). (Key Every Woman, Every Child Global Strategy indicator)
- 5. Infant mortality rate: probability that a child born in a specific year or period will die before reaching the age of 1 year, if subject to age-specific mortality rates of that period, expressed as a rate per 1000 live births.
- 6. Post neonatal child mortality rate. (Countdown to 2030)
- 7. Child mortality, 5-14 years of age or possibly just child mortality, 5-9yrs of age. (Countdown to 2030)
- 8. Total under 5 deaths. (Countdown to 2030)
- 9. Causes of under 5 deaths (includes details on causes of neonatal deaths as well).
- ⇒ 10. Causes of child deaths.
- 11. Malaria mortality rate (per 100 000 population). (WHO Core 100 indicator)
- 12. AIDS-related mortality rate (per 100 000 population). (WHO Core 100 indicator)
- 13. Tuberculosis (TB) mortality rate (per 100 000 population). (WHO Core 100 indicator)
- 14. Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services). (SDG 3.9.1)
- ⇒ 15. Mortality from unsafe water, unsafe sanitation and lack of hygiene. (WHO Core 100 indicator)
- 16. Mortality from household and ambient air pollution. (WHO Core 100 indicator)
- ⇒ 17. Mortality rate attributed to household and ambient air pollution
- 18. Perioperative mortality rate
- 19. Mortality rate due to homicide
- ⇒ 20. Number of victims of intentional homicide per 100,000 population, by sex and age
- 21. Conflict-related deaths per 100,000 population, by sex, age and cause. (SDG 16.1.2)
- 22. Death rate due to road traffic injuries: Number of road traffic fatal injury deaths per 100 000 population. (SDG 3.6.1)
- ⇒ 23. Death rate due to road traffic injuries (WHO core 100 indicator)
- 24. Mortality from unintentional poisoning
- ⇒ 25. Mortality rate attributed to unintentional poisoning

26. Proportion of child deaths registered

Nutrition (12)

- 27. Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age (SDG 2.2.1)
- ⇒ 28. Prevalence of stunting among children under 5 years of age (Every woman, Every Child Global Strategy)
- ⇒ 29. Children under 5 years who are stunted: Percentage of stunted (moderate and severe) children aged 0–59 months (moderate = height-for-age below -2 standard deviations from the WHO Child Growth Standards median; severe = height-for-age below -3 standard deviations from the WHO Child Growth Standards median) (WHO Core
- ⇒ 30. Under-5 stunting (moderate and severe) (%).
- 31. Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight) (2.2.2)
- ⇒ 32. Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
- ⇒ 33. Children under 5 years who are wasted: Percentage of wasted (moderate and severe) children aged 0–59 months (moderate = weight-for-height below -2 standard deviations of the WHO Child Growth Standards median; severe = weight-for-height below -3 standard deviations of the WHO Child Growth Standards median).
- ⇒ 34. Wasting prevalence (moderate and severe, # and %), <5
- ⇒ 35. Under 5 underweight (%)(Countdown to 2030)
- ⇒ 36. Children aged under 5 years who are overweight
- ⇒ 37. Under 5 overweight (%) (Countdown to 2030)
- ⇒ 38. Overweight and obesity in children and adolescents

Health status (morbidity) (16)

- 39. Hepatitis B incidence
- 40. Malaria parasite prevalence among children aged 6–59 months
- 41. Malaria incidence per 1,000 population.
- ⇒ 42. Malaria incidence rate
- 43. HIV incidence rate. (WHO core 100 indicator)

- ⇒ 44. Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations (SDG 3.3.1)
- 45. HIV prevalence rate: Percentage of people living with HIV. Prevalence measures the frequency of existing disease in a defined population at a specific time
- 46. New cases of vaccine-preventable diseases.
- 47. New cases of IHR-notifiable diseases and other notifiable diseases
- 48. Hepatitis B surface antigen prevalence
- 49. Tuberculosis incidence per 100,000 population (SDG 3.3.2)
- ⇒ 50. TB incidence rate (WHO core 100 indicator)
- 51. TB notification rate
- 52. Cancer incidence, by type of cancer
- 53. Number of deaths, missing persons and persons affected by disaster per 100 000 population
- ⇒ 54. Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 people

Child development (5)

- 55. Percentage of children under 5 years of age who are developmentally on track in health, learning and psychosocial wellbeing, by sex (SDG 4.2.1)
- ⇒ 56. Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex (WHO Core 100 additional indicator)
- 57. Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex. (SDG 4.1.1).
- ⇒ 58. Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
- 59. Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated.

Appendix Part II. Working group reports

I. CHAT Acute and Prevention sub-group

Prioritisation of indicators, June 2019-January 2020

This note documents the process used by the CHAT acute and prevention sub-group in prioritising 'Acute and Prevention' indicators from the mapping spreadsheet. It was prepared by Joanna Schellenberg.

Who? The group included Marzia Lazzerini, Melinda Munos, and Joanna Schellenberg, with Jennifer Requejo attending, supporting and documenting many of our meetings, joined by Kate Strong at some points. Further details of definitions can be found in the documentation of our virtual meetings. The majority of our progress was achieved in the Montreux CHAT meeting in December 2019, where our group was joined by Teresa Diaz.

How? We used 8 criteria to prioritise an initial list of 79 indicators: four criteria at phase 1, and four at phase 2. Immediately after we had finished phase 2, and during the Montreux meeting, we were given additional indicators to consider, some of which we accepted to be related to 'acute and prevention' and some of which we did not. This means the initial number of 79 indicators does not reflect the exact number that we considered.

Phase 1

We prioritised by group consensus using the following criteria:

- 1. Leading cause of death, disease, disability, or injury, as shared by Kate Strong in December 2019
- 2. Where relevant, evidence of effectiveness is available
- 3. Tier 1, meaning that the indicator has a clear definition and standards for data collection, and a mechanism for data collection is in place
- 4. No evidence of invalidity

We also assessed whether the indicator fell within the "Acute & Prevention" domain, and if not we recommended it be moved to the relevant group. In this way we moved 11 indicators to the chronic group.

After applying these criteria we were left with 42 indicators

Phase 2

We prioritised by group consensus using the following criteria:

- 1. Non-overlap
- 2. Balance across leading causes of death, disease, disability, or injury
- 3. Prioritising outcome and impact indicators over process and output indicators
- 4. Child-specific (rather than applying to all age groups)

After applying these criteria we were left with 14 indicators

Phase 3

We were asked to consider an additional set of 15 indicators which had not originally been coded as "acute and prevention" but which could be considered to relate to "acute and prevention". We considered that only a subset of nine of these were in fact related to acute and prevention. For this

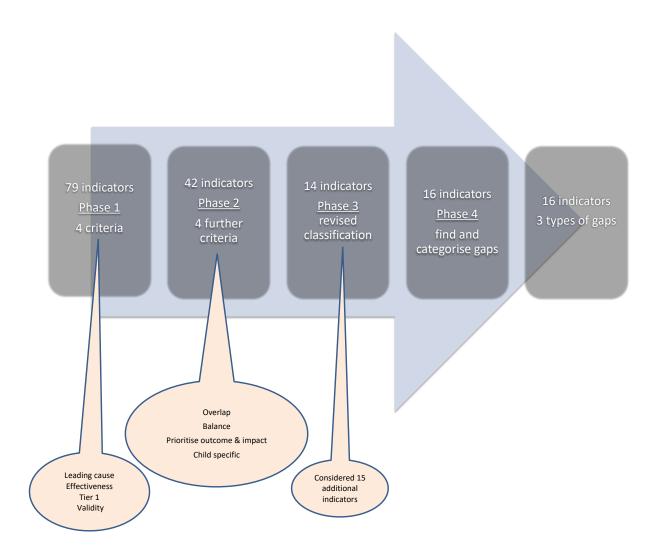
subset, we repeated phase 1, 2, and 3, and we retained two indicators, leaving a total of 16. Some of these are in fact groups of indicators (27-28, 48-51, 53-54, 59-60) from which a single indicator will be selected after consultation with relevant expert groups eg on nutrition or malaria.

Phase 4

Reviewing the prioritised indicators, we checked whether these related to leading causes of death and leading causes of years of life lived with disability, separately for children 0-5 years and for children aged 5-9 years. We identified three types of gap: a gap in analysis [ie. the data is available but not generally analysed in this way], a gap in indicators (the indicator could be improved to better capture the construct, using existing data), and a gap in data.

Additionally, we discussed how better to incorporate an equity lens. We agreed that the same criteria should be used to measure equity for all CHAT groups, which means that this work should start with a discussion in plenary across all three working groups.

All results are synthetized below.



Process

Ref N°	Keep?	Reasons for exclusion	Indicator name
1	N	Prioritizing outcome & impact	ODA to child health per child (US\$) (LSHTM method) (2013)
2	N	Prioritizing outcome & impact	Child lifesaving commodities in essential medicine list
7	N	Prioritizing outcome & impact	International Code of Marketing of Breastmilk Substitutes
8	N	Prioritizing outcome & impact	International Code of Marketing of Breastmilk Substitutes
15	N	Prioritizing outcome & impact	Does the country implement the Integrated Management of Childhood Illness (IMCI) Strategy
30	N	Not high burden	Urinary iodine concentration in children aged 6–12 years
32	N	Overlap	Percentage of children fully immunized
33	N	Not tier 1, overlap	Full immunization of children under-5
34	N	Overlap	Immunization coverage rate by vaccine for each vaccine in the national schedule
35	N	Overlap	Immunization - DTP3
36	N	Overlap	Immunization - PCV3
38	N	Overlap	Immunization - Hib3
39	N	Overlap	Immunization - Rota
40	N	Overlap; comparability issues between countries and over time	Appropriate careseeking for diarrhoea, suspected pneumonia, or fever
41	N	Not tier 1	Treatment of sick children: diarrhoea, pneumonia and malaria
42	N	Overlap	Diarrhoea treatment - ORS
43	N	Overlap	Percentage of children with diarrhoea receiving oral rehydration salts (ORS)
44	N	Overlap	Coverage of diarrhoea treatment
46	N	Overlap	Diarrhoea treatment: Zinc
47	N	Overlap	Children under five with diarrhoea receiving oral rehydration therapy (ORT) and continued feeding during illness
49	N	Overlap	Health-seeking for pneumonia
50	N	Overlap	Care-seeking for symptoms of pneumonia
51	N	Overlap	Proportion of children with suspected pneumonia taken to an appropriate health provider
52	N	Not valid	Pneumonia treatment (children)
54	N	Overlap	Use of insecticide-treated nets (ITNs) in children under 5 (% of children)
55	N	Not child-specific, overlap	Use of insecticide treated nets (ITNs)
57	N	Overlap	Treatment-seeking behaviour for children with fever
60	N	Overlap	Appropriate treatment among children treated for malaria
61	N	Tier 3, overlap	Appropriate treatment for malaria
62	N	Overlap	Treatment of confirmed malaria cases
63	N	Move to chronic group	Early infant testing coverage
64	N	Move to chronic group	Feeding of children born to HIVpositive mothers
69	N	Move to chronic group; not high burden	Coverage of treatment for latent TB infection (LTBI)
70	N	Move to chronic group; not high burden	TB treatment success rate
72	N	Not high burden	Coverage of preventive chemotherapy for selected neglected tropical diseases
73	N	Not high burden	Number of people requiring interventions against neglected tropical diseases
87	N	Overlap	Under-five mortality rate
88	N	Overlap	Under-five mortality rate
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89	N	Overlap	Under 5 mortality rate
91	N	Overlap	Infant mortality rate
94	N	Overlap	Total under 5 deaths
96	N	Overlap	Causes of child deaths
97	N	Not child specific	Malaria mortality rate (per 100 000 population)
98	N	Not child specific; move to chronic	AIDS-related mortality rate (per 100 000 population)
99	N	Not child specific; move to chronic	Tuberculosis (TB) mortality rate (per 100 000 population)
100	N	Not tier 1, not child-specific, risk factor	Mortality from unsafe water, unsafe sanitation and lack of hygiene
101	N	Not tier 1, not child-specific, risk factor	Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)
102	N	Not tier 1, not child-specific, risk factor	Mortality from household and ambient air pollution
103	N	Not tier 1, not child-specific, risk factor	Mortality rate attributed to household and ambient air pollution
104	N	Not tier 1, not child-specific	Perioperative mortality rate
110	N	Not tier 1, not child-specific	Mortality from unintentional poisoning
111	N	Not tier 1, not child-specific	Mortality rate attributed to unintentional poisoning
119	N	Overlap	Children under 5 years who are wasted
125	N	Not high burden	Hepatitis B incidence
126	N	Balance	Malaria parasite prevalence among children aged 6–59 months
127	N	Not child-specific	Malaria incidence rate
128	N	Not child-specific	Malaria incidence per 1,000 population
129	N	Move to chronic	HIV incidence rate
132	N	Not child-specific	New cases of vaccine-preventable diseases
133	N	Not leading cause	New cases of IHR-notifiable diseases and other notifiable diseases
134	N	Not leading cause	Hepatitis B surface antigen prevalence
135	N	Move to chronic	TB incidence rate
136	N	Move to chronic	Tuberculosis incidence per 100,000 population
137	N	Move to chronic	TB notification rate
138	N	Move to chronic	Cancer incidence, by type of cancer
6	N	Prioritizing outcome & impact	Number of countries with legislation / regulations fully implementing the International Code of Marketing of Breastmilk Substitutes (resolution WHA 34.22) and subsequent relevant resolutions adopted by the Health Assembly
9	N	Prioritize for regional level; move to promotion	Birth registration
10	N	Prioritize for regional level; move to promotion	Birth registration
11	N	Prioritize for regional level; move to promotion	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
12	N	Prioritize for regional level; move to promotion	Proportion of children under 5 years of age whose births have been registered with a civil authority (SDG 16.9.1)
13	Hold	For discussion by all groups	Periodic reporting to the Convention of the Rights of the Child (CRC)
14	Hold	For discussion by all groups	UN Convention on the Rights of the Child 1989
16	Pending - Check with TEAM on best indicator to include	Overlap	Exclusive breastfeeding rate 0–5 months of age
17	Pending - Check with TEAM on best indicator to include	Overlap	Percentage of infants <6 months who are fed exclusively with breast milk

18	Pending - Check with TEAM on best indicator to include	Overlap	Exclusive breastfeeding
19	Pending - Check with TEAM on best indicator to include	Overlap	Exclusive breastfeeding disaggregated by month
27	Pending - Check with TEAM on best indicator to include	Overlap	Vitamin A supplementation coverage
28	Pending - Check with TEAM on best indicator to include	Overlap	Vitamin A supplementation, full coverage
112	N	Transform indicator	Proportion of child deaths registered
130	N	Move to chronic	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations
90	Y		Under-5 mortality rate (SDG 3.2.1)
92	Υ		Post neonatal child mortality rate
93	Y		Child mortality, 5-14 years of age or possibly just child mortality, 5-9yrs of age
95	Y		Causes of under 5 deaths (includes details on causes of neonatal deaths as well)
29	Υ		Anaemia prevalence in children
16- 18	Y	Overlap: choose one	Exclusive breastfeeding
27- 28	Y	Overlap: choose one	Vitamin A supplementation coverage
120	Y		Wasting prevalence (moderate and severe, # and %), <5
31	Y		Proportion of the target population covered by all vaccines included in their national programme
37	Υ		Immunization - Measles
48- 51	Υ	Overlap: choose one	Careseeking for symptoms of pneumonia
45	Υ		Diarrhoea treatment: ORS + zinc
53- 54	Y	Overlap: choose one	Use of insecticide-treated nets (ITNs) in children under 5 (% of children)
58	Y		Malaria diagnostics in children under-five
59- 60	Y	Overlap: choose one	Malaria treatment - 1st line treatment
56	Y		Careseeking for fever in children under-five

Selected by type and gaps

						Children 0-5					Children 5-9					
						Mor	tality-a	cute ca	uses			acute ises	Mortali	ty-acute	e cause	es
Ref Nº	Indicator name	Clarifications on definitions	Analysis Gap	Indicator Gap	Data gap	Diarrhea (also YLD)	Pneumonia	Malaria	Meningitis	Measles	Anemia	Wasting	Diarrhea (also YLD)	Pneumonia	Malaria	Meningitis
Mortality (4)												<u> </u>			
90	Under-5 mortality rate (SDG 3.2.1)					Х	Х	Х	Х							
92	Post neonatal child mortality rate	not in Excel				Х	Х	Х	Х	Х						
93	Child mortality, 5-14 years of age or possibly just child mortality, 5-9yrs of age												х	х	х	x
95	Causes of under 5 deaths (includes details on causes of neonatal deaths as well)		age breakdown		5-9y	х	Х	Х	Х	Х			x	х	х	x
Nutrition (4	1)															
29	Anaemia prevalence in children				5-9y			Х			Х	Х			Х	
16-18	Exclusive breastfeeding	different def.				Х	Х			Х	Х	Х				
27-28	Vitamin A supplementation coverage	12m vs calendar year				X	x			х		x				
120	Wasting prevalence (moderate and severe, # and %), <5	definition				Х	Х	Х		Х	Х	Х				
Vaccines (2)															
31	Proportion of the target population covered by all vaccines included in their national programme					x	x		x	Х			x	х		x
37	Immunization - Measles									Х						
Pneumonia	& Diarrhea (2)															
48 to 51	Careseeking for symptoms of pneumonia	appropriate HP?			5-9y		х	х	x					Х	х	
45	Diarrhoea treatment: ORS + zinc			include continued feeding	5-9y	х						Х	х			
Malaria (3)																
53-54	Use of insecticide-treated nets (ITNs) in children under 5 (% of children)	definition	not analysed		5-9y			Х			Х	х			Х	
58	Malaria diagnostics in children under-five				5-9y		Х	Х	Х		Х				Х	Х
59-60	Malaria treatment - 1st line treatment				5-9y			Х							Х	
All-causes	of fever, including meningitis (1)															
56	Careseeking for fever in children under-five				5-9y		Х	Х	Х	Х				Х	Х	Х

II. Health Promotion and Child Development

CHAT TAG Health Promotion and Development Subgroup

Summary of Process and Prioritized Indicators

Membership

- Abdoulage Maiga
- Ambrose Agweyu
- Cynthia Boschi
- Ralf Weigel
- Zeina Jamaluddine

Secretariat

- Jennifer Requejo (UNICEF)
- Kate Strong (WHO)

1. CHAT Meeting (NY, 6-7 Jun 2019)

- Establishment of subgroup
- Review of indicator spreadsheet
 - Scope: child development, nutrition, child abuse and neglect
 - Approach: Use of explicit criteria e.g. evidence base for intervention, validity, alignment to "thrive" theme, potential for promoting accountability, and "child-centredness."
 - Need for validation of process across groups and some effort at coordination of approaches used for the three subgroups
 - Need to define the approach for handling indicators that extend to the neonatal period (covered by the MONITOR) and other unclear age disaggregation

2. Group Call (15 Oct 2019)

- Reviewed scope of tasks
- o Brainstormed on criteria for prioritization
 - Availability of data for the indicators. HMIS, CRVS, DHS and MICS program, and census
 - Must be represented in global accountability frameworks in some way
 - Feasibility of data collection, including at different levels
 - o Indicators that promote equity. A bit of thinking on how to define this
 - Validity to what extent does the indicator measure what it purports to measure
 - "Child-centeredness" considered as an important criterion to promote indicators that stress, or highlight the child's perspective/agency. Requires further discussion for operationalization.
 - o Criteria to promote indicators specific to the older child would be important
 - Priority should be given to indicators that are related to conditions of high burden and for which there are effective interventions

 Stability of the indicators over time considered important (changing definitions make it challenging to track progress over time

Other comments

- Address harmonization alongside prioritization (members to flag indicators that are similar)
- Good documentation will be critical
- Weighting and conditionality to be considered

Group Call (26 Nov 2019)

- o Development of draft scoring matrix (final scoring matrix refer to Appendix 2)
 - Proposed two-step process for prioritizing indicators on Child Health Promotion and Development
 - Subject all candidate indicators to a set of essential criteria which MUST be fulfilled, and
 - 2. Apply a set of **weighted complementary criteria** to the shortlist from step (1).
 - Ultimately each shortlisted indicator will have a score derived from the sum of scores assigned across the domains under the complementary criteria
 - Proposed essential criteria (assign score of 1 or 0. Note that indicators must score 1 for ALL essential domains to the considered for Step 2:
 - 1. **Credibility**: The indicator has been recommended and is being used by at least one global accountability initiative (I.e. relevance for monitoring achievement of global priorities)
 - 2. **Validity**: The indicator has been field-tested (measures what it is supposed to measure)
 - 3. **Availability** of data across majority of settings (may need to agree on threshold)
 - 4. **Stability** over time (possible to track progress over time using the indicator)
 - Proposed complementary criteria will be scored from 1-3 with 3 representing the most favourable score:
 - Effectiveness of the intervention in reducing child morbidity and mortality
 or burden of condition (highest score for either (i) intervention with highest
 impact or (ii) condition with highest prevalence/incidence or most serious
 outcome mortality/severe disability) may require
 epidemiological/effectiveness data for reference, and applicability of criteria
 less evident or relevant for no health-focused indicators (e.g. learning,
 safety)
 - 2. **Ease of measurement**. Data can be obtained with reasonable and affordable effort. (highest score for indicators currently captured in routine HMIS and CRVS across a wide range of settings).
 - 3. **Promotes equity**: The indicator allows stratification for equity dimensions (e.g. socially, economically, demographically, geographically) for representation of inequalities, tracking vulnerable, marginalized and hard-to-reach populations (highest score whether stratification for all or most equity dimensions is possible)

- 4. **Covers the age spectrum** of child health (highest score if measurable for all ages up to 9 years)
- 5. **Child-centred** to be determined if this can still be applied
- General comments
 - Unlike Acute & Prevention, very few indicators are formally validated for Health Promotion and Development. Validity to be reassigned to complementary criteria.
 IMPROVE group (Melinda) may be able to assist.
 - Child centeredness dropped from complimentary criteria
 - Type of indicator added to complementary criteria (input, process, output, outcome, and impact)
 - \circ Team to develop scoring guide for complimentary criteria (1 3) (For final scoring guide, refer to **Appendix 2**)
 - o Next steps: Divide indicators across group members, and pilot the scoring approach

CHAT Meeting (Montreux, 11-12 Dec 2019)

- Develop consensus on final scoring matrix following piloting exercise
 - Further revisions "validity" and "stability" moved from essential to complimentary criteria. "Stability" not scored
- Distribution of original set of indicators among members
- Individual scoring and identification of duplicate indicators
- Presentation to wider CHAT TAG for feedback
- Further review of the original spreadsheet for misclassified indicators and cross-referencing with other subgroups (See Appendix 3)
- Presentation of scores and supporting rationale for each indicator within sub-group for input and validation

Group Calls (Jan/Feb 2020)

- Consolidation of draft mapped indicators (See Appendix 4 for final list of indicators)
- o Consider balance divided along themes based on nurturing care framework
 - Child Health Promotion and Development themes:
 - Nutrition/growth
 - Learning/responsive caregiving (originally stood for early childhood development)
 - Safety/Security (originally was maltreatment and violence)
 - Nutrition theme further subdivided into:
 - Infant and Young Child Feeding
 - o Vitamins, Micronutrients and Anaemia
 - Anthropometry
- o Internal validation of scores Do higher scores reflect high priorities and vice versa?:
 - Agreement that scoring criteria not to be regarded as a fixed reference, but a starting point that may require modification

- Agreement on the scoring to be carried out in an explicit and transparent manner
- Revised thresholds for "high priority" from 15 down to 14 (the decision was justified by the need to include key indicators – e.g. exclusive breasfeeding – into that category, and the fact that the original cut-offs were determined arbitrarily)

Group Call April 2020

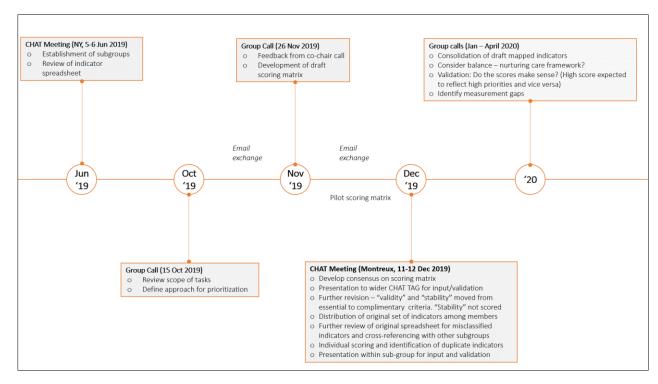
- Measurement gaps
 - Security and safety Only one included in the final list. Three (scored zero on essential criteria)
 - Indicators for 5 9 age group

Next steps

- Internal (CHAT TAG) and external validation (among global expert groups responsible for specific technical areas: nutrition, nurturing care)
- Development of manuscript

Appendix 1

Timeline and Key milestones



Appendix 2: Scoring matrix

Essential Criteria (all must be fulfilled)

- o Credibility
- Availability

Complementary criteria	Scores and corresponding definitions of categories						
Complementary criteria	3	2	1				
Effectiveness/ burden	Leading cause of mortality (disease condition) or reduces mortality (intervention)	Leading cause of morbidity (disease/condition) or reduces morbidity (intervention)	Not a leading cause of morbidity/mortality (disease/condition) or not known to reduce morbidity/mortality (intervention)				
Ease of measurement	Can be captured in routine HMIS or CRVS	Can be captured in survey or census	Other or no known source for measurement				
Promotes equity	Indicator allows stratification for all or most dimensions (e.g. socially, economically, demographically, geographically)	Indicators allows stratification for some dimensions of equity	Indicator does not allow stratification for equity				
Covers the age spectrum of child health	Indicator applies to all of the following age groups: 0-1; 1-4; and 5-9 years of age	Indicator applies to two of the following age groups: 0-1; 1-4; and 5-9 years of age	Indicator applies to one of the following age groups: 0-1; 1-4; and 5-9 years of age				
Validity	Validated/field-tested formally e.g. peer- reviewed publication/ published report	Has face validity (subjectively viewed to measure what it purports to measure)	Has not been formally validated and lacks face validity				
Type of indicator	Impact and outcome indicator	Process and output indicator	Input indicator				

Interpretation of scores					
Total Score 14 to 18	High priority				
Total Score 11 to 13	Moderate priority				

Total Score 6-10 Low priority

Appendix 4: Final Indicators

Theme 1: Nutrition/growth

Indicator	Reference on master spreadsheet	Duplicates	Sub-theme	Score	Priority
Exclusive breastfeeding	18	16, 17, 19	IYCF	14	High
2. Continued feeding (year 1)	20	-	IYCF	12	Moderate
3. Continued feeding (year 2)	21	-	IYCF	12	Moderate
4. Introduction of solid, semi-solid or soft foods	22	-	IYCF	12	Moderate
5. Minimum dietary diversity	23	24	IYCF	13	Moderate
6. Minimum acceptable diet	25	26	IYCF	13	Moderate
7. Vitamin A supplementation coverage	27	-	VMA	15	High
8. Anaemia prevalence in children	29	-	VMA	15	High
9. Urinary iodine concentration in children aged 6–12 years	30	-	VMA	13	Moderate
10. Prevalence of stunting among <5s	114	113, 115, 116	Anthropometry	15	High
11. Prevalence of malnutrition (wasting + overweight among <5s+	117	118	Anthropometry	15	High
12. Prevalence of wasting among <5s*	119	120	Anthropometry	16	High
13. Prevalence of underweight among <5s	121		Anthropometry	15	High
14. Prevalence of overweight among <5s	122	123	Anthropometry	15	High
15. Prevalence of overweight among school aged children + adolescents (5-18y)	124	-	Anthropometry	14	High

IYCF - Infant and Young Child Feeding

VMA - Vitamins, Micronutrients and Anaemia

+ This can be something calculated by adding together the other indices, this needs further thinking on how it is calculated

*duplicate with acute and prevention

Theme 2: Learning/responsive caregiving

Indicator	Reference on master spreadsheet	Duplicates	Score	Priority
16. Participation rate in organized learning (one year before the official primary entry age), by sex	74	75	13	Moderate
17. Early education attendance	76		10	Low
18. % Children aged 0–59 months who have 3+ children's books at home	78	77	13	Moderate
19. % Children aged 0–59 months with 2+ play things at home	80	79	13	Moderate
20. Adult support for early learning ("stimulation")	81		12	Moderate
21. % Children aged 0–59 months left alone, or in the care of another child under 10 years old, for >1 hour at least once in the past week	86	85	12	Moderate
22. % Children under 5 years of age who are developmentally on track in health, learning and psychosocial wellbeing, by sex	141	142, 143	13	Moderate
23. % Children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	145	144	12	Moderate

Theme 3: Safety/Security

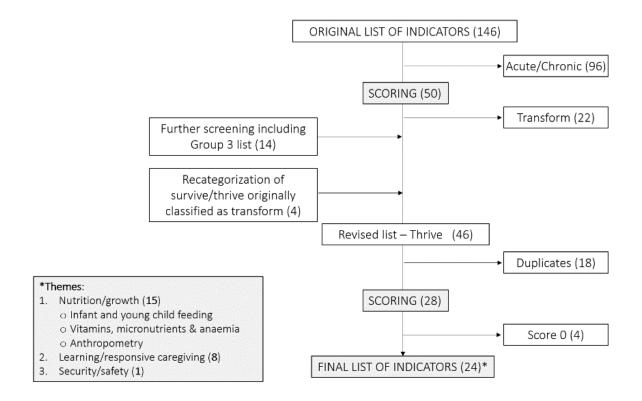
Indicator	Reference on master spreadsheet	Duplicates	Score	Priority
24. Maltreatment, harsh punishment	82		14	High

Indicators scoring 0 (lacked at least one of the essential criteria)

Indicator	Reference on master spreadsheet
Vitamin A supplementation, full coverage	25. 28
Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month	26. 83
Positive discipline	27. 84
Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	28. 146

Note: "Vitamin A supplementation, full coverage" the issue was related to the definition that deviates from the standard definition referring to "two **high dose** in a **given calendar year**", making the availability of data – an essential criteria – questionable.

Appendix 3: Shortlisting and prioritization flow chart



III. Chronic conditions, injuries, disability, violence against children

Group 3 undertook a number of tasks in order to identify appropriate indicators to track chronic conditions, disability and injury and violence

- 1. Finalised an indicator evaluation tool.
- 2. Identified and Evaluated possible indicators, from the mapping list, for use in tracking chronic disease, disability & injury and violence.
- 3. Identified gaps in possible tracking indicators.
- 4. Used YLDs to identify proxy conditions representative of chronic diseases, disability & injury and violence.
- 5. Mapped proxy conditions against possible indicators.
- 6. Identify preferred indicators for tracking chronic diseases, disability & injury and violence.

1. Develop tool/criteria for the evaluation of currently available indicators

5 criteria:

- 1 is either A or B depending on the focus of the indicator clinical condition (leading cause) or health system (effectiveness)
- Each criterion, except 2, has 3 possible scores 1, 2 or 3
- Maximum possible score is 13.
 - 1. A. Leading cause of death, disease, injury or disability
 - 1 Not a leading cause
 - 2 Leading cause of mortality
 - 3 Leading cause of morbidity

OR

- B. Effectiveness
 - 1 Determinant of health
 - 2 Health systems focus
 - 3 Clinical care focus
- 2. It is a child centred indicator

Child specific indicator

- 3. Age focus
 - All ages 0-99 ie not child specific and includes adolescents and adults
 - 2 < 5 OR 5 9
 - $3 \quad 0-9$
- 4. Feasibility
 - 1 Tier 3 indicator is aspirational

- 2 Tier 2 indicator incomplete
- 3 Tier 1 indicator available

5. Type of indicator

- 1 Input
- 2 Process/Output
- 3 Outcome/Impact

2. Identify and Evaluate available indicators using tool

We assessed the indicators in 2 frameworks

- i. Survive; Thrive & Transform
- ii. Promotion; Acute & prevention & Chronic disaease, disability and injury and violence

We identified 35 thrive indicators that were considered relevant – 16 were aligned to chronic diseases, disability and injury and violence and 19 to promotion and development

We also identified 36 chronic disease indicators – 16 were aligned to thrive (with or without survive and transform) and 20 were aligned to survive

The following 55 indicators were common to both groups:

ID	Indicator	Score	STTr framework	PAC framework
1	ODA to child health per child (US\$) (LSHTM method) (2013)	10	S/T	PAC
3	Maternity protection (Convention 183)	8	T/Tr	Р
6	Number of countries with legislation / regulations fully implementing the International Code of Marketing of Breastmilk Substitutes (resolution WHA 34.22) and subsequent relevant resolutions adopted by the Health Assembly	8	Т	PA
9	Birth registration	11	S/T/Tr	PAC
13	Periodic reporting to the Convention of the Rights of the Child (CRC)	10	S/T	PAC
18	Exclusive breastfeeding	12	Т	PA
21	Continued breastfeeding (year 2)	12	Т	Р
22	Introduction of solid, semi-solid or soft foods	12	Т	Р
25	Minimum acceptable diet	12	Т	Р
29	Anaemia prevalence in children	12	Т	Р
30	Urinary iodine concentration in children aged 6–12 years	12	Т	Р
64	Feeding of children born to HIVpositive mothers	12	Т	PA
65	People living with HIV who know their status	10	S/T	PC

66	Antiretroviral therapy (ART) coverage	10	S/T	PC
67	ART retention rate	10	S/T	PC
68	HIV viral load suppression	10	S/T	PC
69	Coverage of treatment for latent TB infection (LTBI)	10	S	PC
70	TB treatment success rate	10	S	С
·n	I. P	6	STTr	PAC
ID	Indicator	Score	framework	framework
71	HIV test results for TB patients	10	S/T	С
76	Early education attendance	12	Т	Р
77	Children's books in the home	9	Т	Р
79	Children play with objects at home	12	Т	Р
81	Adult support for early learning ("stimulation")	12	Т	Р
83	Proportion of children aged 1–17 years who experienced any			
	physical punishment and/or psychological aggression by	13	Т	PC
	caregivers in the past month			
84	Positive discipline	13	Т	Р
86	Percentage of children aged 0–59 months left alone, or in			
	the care of another child under 10 years old, for more than	12	Т	Р
	an hour at least once in the past week			
88	Under-five mortality rate	11	S	AC
91	Infant mortality rate	11	S	AC
92	Post neonatal child mortality rate	11	S	AC
93	Child mortality, 5-14 years of age or possibly just child	11	S	AC
	mortality, 5-9yrs of age	11	3	AC
94	Total under 5 deaths	11	S	AC
98	AIDS-related mortality rate (per 100 000 population)	9	S	AC
99	Tuberculosis (TB) mortality rate (per 100 000 population)	9	S	AC
100	Mortality from unsafe water, unsafe sanitation and lack of hygiene	9	S	AC
103	Mortality rate attributed to household and ambient air pollution	9	S	AC
105	Mortality rate due to homicide	9	S	С
107	Conflict-related deaths per 100,000 population, by sex, age			
	and cause	9	S	С
108	Death rate due to road traffic injuries	9	S	С
110	Mortality from unintentional poisoning	9	S	С
112	Proportion of child deaths registered	11	S	AC
114	Children under 5 years who are stunted	12	T	PC
117	Prevalence of malnutrition (weight for height >+2 or <-2	42	c / T	D.C
	standard deviation from the median of the WHO Child	12	S/T	PC

	Growth Standards) among children under 5 years of age, by			
	type (wasting and overweight)			
121	Under 5 underweight (%)	12	T	PC
122	Children aged under 5 years who are overweight	12	Т	PC
124	Overweight and obesity in children and adolescents	12	Т	PC
125	Hepatitis B incidence	10	S/T	Α
129	HIV incidence rate	10	S/T	Α
131	HIV prevalence rate	10	Т	Р
134	Hepatitis B surface antigen prevalence	10	Т	С
137	TB notification rate	10	S	AC
138	Cancer incidence, by type of cancer	10	S	С
140	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	9	S	С
143	Proportion of children under 5 years of age who are			
1.5	developmentally on track in health, learning and	12	Т	PC
	psychosocial well-being, by sex			
144	Proportion of children and young people: (a) in grades 2/3;		Т	Р
	(b) at the end of primary; and (c) at the end of lower	12		
	secondary achieving at least a minimum proficiency level in	12		
	(i) reading and (ii) mathematics, by sex			

3. Identify gaps

Before preferred indicators and gaps could be identified the needs for each age group were established:

	1 – 59 months	5 – 9 years
Promotion	Nurturing Care	Stimulation
Health of all children	ECD	Nutrition
including the well	Nutrition/Growth	
Wellbeing	Disability	Disability
Facilitate optimal functioning	Injury/Violence	Injury/Violence
of children with disability or	Cong malformation	Cong malformation
chronic disease		Chronic infection
		NCDs

Promotion this is the primary remit of group 2

Indicators outside the health sector may be required for 5-9 year olds

Wellbeing this is the focus of group 3

need to select proxy condition representative of each "domain"

selection of proxy condition should be based on YLDs

Ideally each proxy should have 3 indicators

- 1. **Burden** of disease (incidence/prevalence)
- 2. Access to appropriate care
- 3. Response to care (outcome)

4. Used YLDs to identify proxy conditions representative of chronic diseases, disability & injury and violence.

We used YLDs as a surrogate for burden of disease

We used the WHO dataset as a source of YLDs

We combined both genders and all age groups to establish a single figure for each condition

We identified the 10 conditions that we think reflect chronic diseases, disability and injury with the highest YLDs across the whole age group 1 month to 9 years We mapped these against available indicators in Holly's analysis

Our top 10 conditions are:

- 1. Iron deficiency anaemia
- 2. Skin diseases most likely dermatitis, including eczema
- 3. Congenital anomalies neural tube defects are the commonest
- 4. Asthma
- 5. Uncorrected refractive error
- 6. Diabetes, endocrine, blood disorders Thalasaemia
- 7. Other neurological problems
- 8. Autism/Asperger's syndrome
- 9. Unintentional injury
- 10. Hearing loss

For the conditions that cover a broad range of conditions we identified a proxy disease using a variety of data sources to determine the commonest condition in each group:

Skin diseases – dermatitis, including eczema

Congenital anomalies – neural tube defects

Diabetes, endocrine, blood disorders – Thalassemia

Other neurological conditions – epilepsy

Unintentional injury – road traffic accidents

5. Mapped proxy conditions against possible indicators.

Only 2 of our proxy conditions have indicators

29 - Anaemia prevalence in children

108 - Death rate due to road traffic injuries

6. Identify preferred indicators for tracking chronic diseases, disability & injury and violence.

Our proposal is that in order to limit the number of indicators required we focus on the top 5 conditions of global significance

1. Fe deficiency anaemia

- 2. Neural tube defect
- 3. Asthma
- 4. Uncorrected refractive error
- 5. Road traffic accidents

For each condition we need to identify 2 indicators

- i. Prevalence of the condition we have for anaemia and road traffic accidents
- ii. Access to/coverage of care we do not have any

These choices incidentally cover chronic diseases, disability and injury.

We have dropped skin conditions as we felt these were too non-specific.

We also believe that some conditions have regional significance and should be considered in phase 2 when we look at regional level indicators. These include:

HIV/TB/Malaria

Thalassemia